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## REMARKS

The Applicants respectfully request reconsideration of this application in view of the above amendments and the following remarks.

**35 U.S.C. §103(a) Rejection – Yates and Borrill**

The Examiner has rejected claims 30-38, 40-43, 45 and 47-66 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,802,373 issued to Yates et al. (hereinafter "Yates") in view of U.S. Patent No. 6,496,922 issued to Borrill (hereinafter "Borrill"). Without admitting the Yates and Borrill may be combined, the Applicants respectfully submit that the present claims are allowable over Yates and Borrill.

Claim 30 recites in part:

*"receiving a binary of a program code, the binary based on a first instruction set architecture;*

*checking one or more settable compatibility controls defined on top of a second instruction set architecture that have been set by a program environment, wherein the one or more settable compatibility controls indicate a compatibility with which the binary is to be translated; and*

*translating the binary to a translated binary based on the one or more settable compatibility controls, wherein the translated binary is based at least in part on the second instruction set architecture, and wherein the translating is performed without fully preserving program semantics of the binary by deviating from the program semantics of the binary in exchange for improved execution performance of the translated binary according to the one or more settable compatibility controls".*

Yates and Borrill do not teach or suggest these limitations. In particular, Yates and Borrill do not teach or suggest: (a) settable compatibility controls defined on top of a second instruction set architecture; (b) wherein the one or more settable compatibility controls indicate a compatibility with which the binary is to be translated; and (c) wherein the translating is performed without fully preserving program semantics of the binary by deviating from the

program semantics of the binary in exchange for improved execution performance of the translated binary according to the one or more settable compatibility controls.

The Applicants respectfully submit that the ISA tags of Borrill do not read on the claimed settable compatibility controls. In particular, the ISA tags of Borrill are not **defined on top** of a second instruction set architecture. Furthermore, the ISA tags of Borrill do not indicate a **compatibility** with which the binary is to be translated. Still further, there is absolutely not teaching or suggestion in Borrill that the translating is performed without fully preserving program semantics of the binary by deviating from the program semantics of the binary in exchange for improved execution performance of the translated binary **according to the one or more settable compatibility controls**.

For at least one or more of these reasons, claim 30 and its dependent claims are believed to be allowable over Yates and Borrill.

Independent claims 33, 43, 49, and 56 and their respective dependent claims are believed to be allowable for one or more similar reasons.

Claim 62 recites in part:

*"a dynamic random access memory to store a binary that is based on a first instruction set architecture that allows binaries to self modify;*

*a memory controller associated with the dynamic random access memory;*

*a translation logic coupled to the dynamic random access memory to receive the binary, the translation logic is to translate the binary to a translated binary that is based, at least in part, on a second instruction set architecture that does not allow binaries to self modify, wherein during the translation the translating logic is to instruct the memory controller to perform write operations without checking whether binary is self modifying".*

Yates and Borrill do not teach or suggest these limitations. In particular, Yates and Borrill do not teach or suggest that when translating from a first ISA that allows binaries to self modify to a second ISA that does not allow binaries to self modify, that during the translation the

translating logic is to instruct the memory controller to perform write operations **without checking whether binary is self modifying.**

The Examiner has previously relied upon col. 10, lines 49-53 of Yates as disclosing the limitation of instructing the memory controller to perform write operations without checking whether binary is self modifying. However, Applicants have carefully reviewed col. 10, lines 49-53 and have found that this section absolutely does not disclose instructing the memory controller to perform write operations without checking whether binary is self modifying. Col. 10, lines 49-53 recite as follows: *"For example, instructions which are self modifying (i.e. are not in read only sections, that is, are on a writable page) will not be translated. For these instructions the run-time system will execute them via the interpretation routines"*. This says that instructions which are self modifying are executed via the interpretation routines instead of being translated, but **does not teach or suggest instructing the memory controller to perform write operations without checking whether binary is self modifying.**

Accordingly, claim 62 and its dependent claims are believed to be allowable.

### **35 U.S.C. §103(a) Rejection – Yates, Borrill and Le**

The Examiner has rejected claim 39 under 35 U.S.C. §103(a) as being unpatentable over Yates in view of Borrill and Bich C. Le, "An Out-of-Order Execution Technique for Runtime Binary Translators, 1998.

Claim 39 is believed to be allowable at least for its dependency on claim 33, which as discussed above is believed to be allowable.

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**Conclusion**

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance. Applicants respectfully request that the rejections be withdrawn and the claims be allowed at the earliest possible date.

**Request For Telephone Interview**

The Examiner is invited to call Brent E. Vecchia at (303) 740-1980 if there remains any issue with allowance of the case.

**Request For An Extension Of Time**

The Applicants respectfully petition for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17 for such an extension.

**Charge Our Deposit Account**

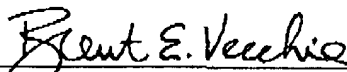
Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 2/27/07

By



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